

The Relationship between the Quality of Teachers and Pupils Academic Performance in the STMA Junior High Schools of the Western Region of Ghana

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Abstract

The study investigated into the relationship between the quality teachers and students academic performance in Sekondi Takoradi Metropolitan Assembly (STMA) Junior High Schools. Descriptive survey design was used and the target population was Junior High School teachers and pupils in the metropolis. Five educational circuits in the metropolis were randomly selected for the conduct of the study. Stratified and systematic sampling techniques were used to sample participants and the sample size was 500. Questionnaire was the main instrument used for the data collection. Pearson Moment Correlation, ANOVA, means, percentages and standard deviations were used to analyse the data. The results of the study showed that even though the quality of teachers was high in terms of their academic and professional qualifications, it did not reflect much in the performance of the students.

INTRODUCTION

Education is an essential and indispensable part of human life (Aggarwal, 1997). It is therefore, a constitutional right, matter of self-interest and moral principle for a child to receive good quality education. Education needs to be reinforced throughout life because the nation depends on it for a competitive work force and cohesive citizenry (Hettleman, 2007). It has positive impact on human life and the level of educational attainment helps individuals to earn respect and recognition.

Education has been the instrument for economic empowerment and development of sustainable economy and plays rudimentary role in our society. One of the national educational goals is the acquisition of appropriate skills and development of mental, physical and social abilities and competencies as equipment for the individual to live and contribute to the development of the society (FRN, 2004). Over the years, education has been assisting scientists to invent equipment and devices which has resulted in high technological advancement. Therefore, the more developed life becomes, the more necessary education is for everyone (Opdenakker & Damme (2006)).

Education empowers the citizenry to question authorities for their negligence or discrepancies and avail their rights as citizens and seek improvement in the structural functioning of governance and economy (Opdenakker & Damme, 2006). It is only when the citizens are aware of the policies of their governments that they can support or protest change. As a whole, people can bring about development only when they know where improvement is necessary for the greater good of mankind.

According to Nwangwu (2007) what children learn, retain and practice after leaving school has direct impact on the nation's competencies and skills. What is learnt both formally and informally determines the individual's ability to contribute to national development. Educated human resources constitute manpower and personnel that bring about national development (Aghenta, 2006). It therefore means that the quality of education received by the citizens determines the level of development of any nation. A number of factors determine the level of performance in the school system especially the quality of the input and school process variables (Ochuba, 2008). Goals of education can only be achieved with a well organised school system that would ensure that all aspects of school life are well articulated and effectively co-ordinated.

Teachers play a vital role in ensuring quality education delivery. They are best known for the role of educating students in their care. The most common role teachers' play in the classroom is to dispense pertinent knowledge to students by following the curriculum. Teachers use various methods such as lecture, small group activities and hands-on learning activities to dispense knowledge to students. Beyond that, they serve many other roles in the classroom. Teachers set the tone of their classrooms, build warm environment, mentor and nurture students, become role models, listen and look for signs of trouble etc. (Fraser & Walberg, 2005). They are therefore, responsible for promoting the mission and ethos of the schools through structured classroom prayer, participation in the liturgical life of the school, and modelling of appropriate standards of behaviour.

Teaching is demanding in a variety of ways which include time, effort and commitment. Teachers prepare pupils for the job market and the socio-economic development of every nation. They are required to exhibit good qualities and accommodate the academic, social and emotional needs of their students (Williams, 2003). The passion they have reflects through their effectiveness. While in the classroom, they adapt to various

learning styles and classroom dynamics by using superior classroom management techniques to create a healthy classroom environment which is safe, resourceful and productive. Teaching quality, as perceived by the student, is quite closely linked to student engagement measures, and the relationships work mainly in expected directions (Xuehui, Emily & Tanja, 2008). For educational aspirations, significant positive effects are seen for students who report that teachers care for students, treat students fairly and encourage questions. Significant negative effects are seen among students who report that teachers assign lots of homework and always lecture in class. Educators are at the core of every educational system and therefore, the quality of the educators in every school system reflects and impacts the overall quality of the school system and the potential of the students within the system (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Darling-Hammond, Chung & Frelow, 2002; Goldhaber & Brewer, 2000; Hickman, Bartholomew, Mathwig, & Heinrich, 2008). Educators, as lifelong learners, equip learners with the skills and resources needed to attain success academically and socially. However, to accomplish this requires more consistent and effective programmes which adequately prepare educators and provide them with the knowledge, skills, and resources needed to successfully engage students and increase academic achievement (Intrator & Kunzman, 2006).

Effective teaching and learning cannot occur without congenial classroom environment. Teachers maintain positive and effective learning environment through well-prepared and varied lessons, which cater for the range of student abilities and interests. It also involves, setting of realistic and challenging academic standards of student performance. Teachers are required to demonstrate commitment to teacher professional development through interest and attendance at appropriate in-service courses, commitment to a programme of professional study.

Several indices are used to measure the quality of a teacher. Each teacher quality index provides a single measure of teacher quality based on a larger number of teacher quality measures, such as teacher experience, certification status, academic ability and even stability at school. Although there is ongoing debate about whether objective measures of teacher quality (such as experience, certification status, quality of the preparation and teacher stability) accurately identify teacher effectiveness in improving student achievement, recent research has found statistically significant relationships between these objective measures of quality and gains in student achievement.

Statement of the Problem

Teaching is a career that provides challenges, excitement, personal reward and chance to encourage and support others to achieve their goals Johnson, Kahle and Fargo (2007). Good teachers work with their colleagues, parents, other professionals and community members to inspire their students to learn. Through the rigorous training teachers go through during their pre-service training, they acquire qualities such as strong knowledge in particular subject areas, patience, good sense of humour etc. These qualities are essential to ensure a permanent change in pupils' behaviour. With such qualities, teachers are expected to motivate and encourage pupils to study hard to improve the standard of education.

However, there have been public outcries that the academic performance of pupils in Sekondi Takoradi Metropolitan Assembly (STMA) is below expectation. Most of the pupils cannot read fluently and speak good English. They have poor handwriting and perform poorly in Basic Education Certificate Examination (BECE). These problems are not peculiar to only the pupils in STMA. Ochuba (2008) similarly reported that there has been a public outcry on the continual decline in the standards of education in Nigeria as indicated in public examinations and performance of education outputs that are inadequate for employment.

The question then is does that mean the qualities teachers' possess do not impact positively on their students' performance? If that is the case, what might have been the possible causes? This study sought to determine the relationship between the quality of teachers and the academic performance of the pupils in the Metropolis.

Objectives of the Study

The general objective of the study was to determine the relationship between the qualities of Junior High Schools teachers and pupils' academic performance in the Sekondi Takoradi Metropolis. The specific objectives of the study were to:

1. determine the qualities of the teachers in STMA Junior High Schools.
2. find out the staff development opportunities available to the teachers in the metropolis.
3. find out the academic performance of the pupils in the Metropolis.
4. determine the relationship between the quality of the teachers and pupils academic performance in the metropolis.

Research Questions

The research questions that guided the study were:

- 1 What are the qualities of the teachers in the STMA Junior High Schools?
- 2 What staff development programmes are available to the teachers in the Metropolis?
- 3 What is the academic performance of pupils in the BECE from 2010 to 2012?
- 4 Is there any relationship between the quality of teachers and JHS pupils' academic performance?

Hypotheses of the Study:

The following null hypotheses were formulated to guide and direct the study.

1. There is no relationship between teachers' qualification and students' performance.
2. There is no relationship between teachers' knowledge of subject matter and the students' performance.
3. There is no relationship between teachers' pedagogical skills and the students' performance.
5. There is no relationship between teachers' length of service/experience and the students' performance.

LITERATURE REVIEW

Quality has been described in many ways, although, often in an intuitive manner (Reeves, 2002). Iyamu (2005) defines quality of education as "the principal measure of the effectiveness of education and the most vulnerable attribute that suffers when anything goes wrong with the system". In the report "Priorities and Strategies for Education" (1995), the World Bank dealt with education policy issues and made the following observation concerning quality: "Quality in education is difficult to define and measure. An adequate definition must include student outcomes. Most educators would also include in the definition the nature of the educational experience that help to produce that outcome - the learning environment" (World Bank, 1995, p. 46).

Quality cannot be seen as a fixed concept. Quality and standards are in fact relative matters - relative to the particular time and place and to particular learners and their circumstances. One important aspect of quality is the relevance of the subjects taught and the objectives of education. Quality education is an education that provides students with the tools to deal with and find solutions to the challenges facing mankind (ETUCE, 2002). Quality therefore is a concept that takes on different meanings at different situations; however, it is essential for effective teaching and learning for meeting educational goals

According to Darling-Hammond (2000), variables recognised to be indicative of teachers' competence which have been examined for their relationship to student learning include measures of academic ability, years of education, years of teaching experience, measures of subject matter and teaching knowledge, certification status, and teaching behaviours in the classroom. However, the results of these studies have been mixed; with some trends emerging in recent years.

Subject Matter Knowledge

Subject matter knowledge is one variable that could be related to teacher effectiveness Egungun (1992) has shown strong correlation between the subject matter knowledge of the teacher and the learning outcomes. A study of middle school mathematics teachers, matched by years of experience and school setting, found that students of fully certified mathematics teachers experienced significantly larger gains in achievements than those taught by teachers not certified in mathematics (Hawk, Coble, & Swanson, 1985).

Druva and Anderson (1983) found students' science achievement was positively related to the teachers' course taking background in both education and in science. The relationship between teachers' training in science and student achievement was greater in higher level science courses, a result similar to that found by Hawk, Coble, and Swanson (1985) in mathematics.

However, studies of teachers' scores on the subject matter tests of the National Teacher Examinations (NTE) showed no consistent relationship between this measure of subject matter knowledge and teacher performance as measured by student outcomes or supervisory ratings. Most studies show small, statistically insignificant relationships, both positive and negative (Andrews, Blackmon & Mackey, 1980; Haney, Madaus, & Kreitzer, 1986; Summers & Wolfe, 1975).

Teaching Experience

Experience is another criterion used often to measure teacher quality. Berliner (1976) is of the view that experience accumulated over the years is the most crucial necessary condition for expertise. Many studies have shown a relationship between teachers' effectiveness and their years of experience (Murnane & Philip, 1981; Klitgaard & Hall, 1974), but not always a significant one. Rosenholtz (1986) found that inexperienced teachers (those with less than 3 years of experience) are not effective than more senior teachers but the benefit of experience appear to level off after about five years.

Participation in Professional Development Activities

Professional development activities can be conducted by many different organizations, in school and out of school, on the job or during sabbatical leave. On these occasions, practicing teachers update their content knowledge and teaching skills so they can meet the requirements of new curricula, consider new research findings on teaching and learning, and adapt to changes in the needs of the student population, and so on. Criticism has been levelled against the episodic nature of these activities and concern expressed that very little is known about what these activities really comprise and involve.

Conclusions in the literature on the relationship between teachers' participation in professional development activities and student outcomes are mixed. Some studies on in-service professional development have found no relationship to student achievement in mathematics and reading (Jacob & Lefgren, 2004). Other studies have found higher levels of student achievement linked to teachers' participation in professional development activities directly related to the area in which they are teaching e.g. mathematics (Brown, Smith, & Stein, 1995; Cohen & Hill, 1977; Wiley & Yoon, 1995) and in regard to language and mathematics, Angrist and Lavy (2001). Wenglinsky (2000) found a positive correlation between professional development activities aimed at the needs of special education students, and students' higher-order skills and laboratory skills in science. More recently, Harris and Sass (2007) identified what they call the "lagged effect of professional development," that is, the larger effect of teachers' professional development on student outcomes not becoming apparent until three years after the teachers had completed their courses. The interpretation of the positive effect of participation in teacher professional development activities is not clear cut, as this variable is confounded with other teacher attributes, that is, teachers who participate in these activities are also likely to be more motivated and, usually, more specialized in the subjects they teach.

METHODOLOGY

Research Design

The descriptive survey design was used to conduct the study. This design involves drawing a sample from the population of interest and measuring the characteristics of the sampled members. It is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation (Key, 1997).

Population and Sampling Procedure

The study population was Junior High School teachers in STMA. They were selected because they are directly involved in the teaching and learning process. Consequently, they could provide reliable information for the conduct of the study.

In selecting the various schools in the metropolis, the lottery type of the simple random sampling method was used. This sampling method gave each school the opportunity to be selected. The Statistical Section of the Metropolitan Education Office was contacted for the list of schools and teachers. This was used to prepare the sample frames for the schools and teachers. After preparing the sample frame, the schools were represented with numbers and the numbers were written on pieces of papers, folded and thoroughly mixed in a basket. Sampling was conducted without replacement and 30 out of the 97 Junior High Schools in the district were randomly selected.

Stratified sampling method was used to select the participants. They were put into 11 different strata based on the educational circuits in which they teach. The names of teachers in each stratum were represented with numbers and the lottery type of simple random sampling method was used to sample them. This process was repeated till the teachers in the other strata were sampled. In all 200 participants out of 582 participants were selected for the study.

Instrumentation

Instrument used to collect data was questionnaire. Questionnaire is a means of eliciting the feelings, beliefs, experiences, perceptions, or attitudes of some sample of individuals. According to Amedahe (2007), the questionnaire is a very concise, replanted set of questions designed to yield specific information to meet a particular need for research information about a pertinent topic. Questionnaire was used because it can be completed at the respondents' convenience, has wider geographical coverage and offer greater assurance of anonymity so can elicits more candid and more objective replies.

The questionnaire was divided into six sections. The first section elicits information on participants' biodata. It consisted of 10 items and were closed-ended. Sections two to were on qualities of teachers and were of Likert scale type. The responses ranged from "strongly agree" to "strongly disagree" and the items were on pedagogical skills of the teacher, teacher's experience/teacher's retention, subject matter content and teacher's qualification. The Likert scale consisted of twenty six items. The last section was on opportunities for staff development in the Metropolis and it consists of six items.

Data Collection

Copies of the questionnaire were administered personally to the participants in their schools. Before administering the questionnaires to the participants, the purpose and significance of the study were made known to them. After the administration of copies of questionnaire, participants were allowed some time to respond to the items in the questionnaire. After that the questionnaires were collected on that same day. The rate of return was hundred percent. Relative importance of the study as determined by the respondents and the quality and design of the questionnaire are the factors that affect percentage rate of return of copies of the questionnaire (Key, 1997).

Data Analysis Plan

Frequency distribution and percentages were used to analyse participants' biodata and opportunities for staff development. Standard deviations and means were also used to analyse data on qualities of teachers in STMA Junior High Schools. Pearson Moment Correlation Coefficient was used to determine the relationship between teachers pedagogical skills and pupils' academic performance, pupils' performance and teachers' teaching experience, pupils' performance and subject matter content and pupils' performance and the teachers' qualification. Analysis of variance was used to compare the performance of the pupils in the various schools. The level of significance chosen for decision making is 0.05.

RESULTS AND DISCUSSIONS

Research Question 1: What are the qualities of Junior High Schools teachers in the STMA?

Participants' responses on their professional qualifications are presented in Table 1.

Table 1: Professional qualifications of Junior High School teachers in STMA

Professional Qualification	Frequency	Percentage
B.Ed.	50	25.0
Diploma	134	67.0
Cert A Post Secondary	16	8.0
Total	200	100.0

From Table 1, it was observed that 67.0% of the participants hold Diploma in Basic Education Certificate as their professional. Twenty five percent (25.0%) of the remaining participants hold Bachelor's degree in Basic Education as their professional qualification. However, majority of them hold SSCE/WASSCE as their academic qualification. In Ghana, the minimum professional qualification for basic school teachers is Diploma in Basic Education. Therefore, in terms of teaching the basic school level, the teachers in Sekondi-Takoradi Metropolitan Assembly have the requisite professional qualification. It is therefore expected that the pupils' academic performance would relate positively to their teachers' professional qualifications. In a study conducted by Ugbe and Agim (2009), they reported significant relationship between teachers' competence and students' academic performance in Chemistry. Chemistry students taught by qualified teachers performed significantly better than those taught by unqualified teachers.

Table 2: Teacher's qualification

Statement	M	S D
Higher qualification is required to be able to teach at the JHS level	3.8	1.14
Non-professional teachers should not be allowed to teach at the J.H.S level	3.4	1.16
Teachers with B.Ed. and Diploma in Basic Education perform better at the J.H.S level, thus improve students' performance.	4.9	0.77
Teacher qualifications do not count when it comes to the performance and effectiveness of the teacher in the classroom.	3.2	1.15

Scale = 1-Strongly Disagree, 2-Diasgree, 3-Agree, 4- Strongly Agree]

Table 2 also presents the participants' views on teacher qualification. The views were measured on a four point Likert Scale ranging from "Strongly Disagree" to "Strongly Agree."

The results in Table 2 show that the participants agreed on the all the items on teacher qualification. However, there were variations in their views on the statement that higher qualification is required to teach in the Junior High School ($M=3.8$; $SD=1.14$), non-professional teachers should not be allowed to teach at the Junior High School level ($M=3.4$; $SD=1.16$) and a teacher's qualification does not count when it comes to performance and effectiveness of the teacher in the classroom ($M=3.2$; $SD=1.15$). It could therefore be concluded that the participants perceived teachers' qualification as an important factor in promoting higher academic work. Teacher's qualification plays an important role in the teaching and learning process. Consequently, professional training is more important in teaching, because trained teachers know how to teach more effectively than untrained teachers (Holtzman, 2005).

However, in a study where Buddin and Zamarro (2009) compared teacher license test results with teacher performance in terms of students test scores, they found no relationship between students achievement and teachers' test scores. They also analysed whether failing the examination before later passing it was related to students' achievement and found no statistically significant link. This suggests that teachers' qualification has little effect on students' academic performance.

Table 3: Teachers' pedagogical skills

Item	M	SD
Using collaborative methods to teach improves pupils' performance	4.7	0.78
Talk and chalk is the only method best in teaching at the JHS	1.8	6.56
Reflective method should be adapted by JHS teachers	3.1	0.87
Team method of teaching is the best way to improve pupils' learning in the JHS	4.8	0.89
Teachers use demonstration method often to teach their lessons.	3.2	1.01
Using field trip method often enhances active learning	4.7	0.79
Grouping method helps in effective teaching/learning	4.8	0.89
Active involvement of pupils' in lessons improves their performance	3.2	2.99
Effective use of teaching aids enhances effective learning	4.3	0.54
Teacher's effective communication during lessons enhances effective learning.	4.5	0.81
Blending local languages with English language during lessons promote understanding of lessons.	3.1	1.00
Daily preparation of lesson notes is necessary for effective teaching.	4.9	0.89
Daily preparation of lesson notes is tedious.	3.1	1.08
Weekly preparation of lesson notes is best for teaching	3.1	1.05
Preparation of lesson notes is mainly recommended for effective teaching at the JHS	3.3	0.95
There is no need for preparation of lesson note at J.H.S	1.2	1.02

[Scale = 1-Strongly Disagree, 2-Diasgree, 3-Agree, 4- Strongly Agree]

The participants' views on teachers' pedagogical skills were also measured on a four point Likert Scale ranging from "Strongly Disagree" to "Strongly Agree." Their responses are shown in Table 3.

The participants agreed on all the items on the use of teaching methods except the use of talk and chalk method. The participants strongly disagreed that talk and chalk is the best method teachers use in teaching at the Junior High School ($M=1.8$; $SD = 6.56$). Their responses generally show that the use of teaching method is essential to promote high academic performance.

The participants agreed that effective use of teaching aids enhances effective learning ($M=4.3$; $SD=0.54$). They also agreed that daily preparation of lesson notes is necessary for effective teaching ($M=4.9$; 0.89), daily preparation of lesson notes is tedious ($M=3.1$; 1.08) and weekly preparation of lesson notes is best for teaching 3.1 ; 1.05). However, they strongly disagreed that there was no need for teachers to prepare lesson note ($M= 1.2$; $SD = 1.02$). The participants found the use of lesson plan as an important element in the teaching

and learning process. It is therefore imperative for teachers to prepare detailed lesson plan for effective teaching and learning.

Table 4: Teachers' teaching experience

Item	M	SD
A teacher with long teaching experience teaches better than a teacher with little or no experience	3.5	1.29
Pupils perform better when taught by well experienced teachers	4.8	0.54
Teaching a particular subject or class for years improves teachers' effectiveness.	3.1	1.12

[Scale = 1-Strongly Disagree, 2-Diasgree, 3-Agree, 4- Strongly Agree]

Table 4 presents participants responses on teachers' teaching experience in relation to pupils' academic performance. Their responses were also measured on a four-point Likert scale ranging from "strongly disagree" to "strongly agree".

The results in Table 4 show that the participants strongly agreed that pupils perform better when they are taught by well experienced teachers ($M=4.8$; $SD=1.29$). They also agreed that teachers with long teaching experience teach better than teachers with little or no experience ($M=3.1$; $SD=1.12$). However, there were variations in their responses. Their responses show that teachers' teaching experience is very vital in promoting higher academic performance. Similar studies on the effect of teachers' experience on pupils' learning found a positive relationship between teachers' effectiveness and their years of experience, but not always a significant or an entirely linear one (Murnane & Phillips, 1981). Owolabi (2007), Abraham and Morrison (2006) and Darling Hammond (2000) also agree that teachers' years of experience as a measure of quality is important in the achievement of students' academic performance. Zhang (2008) on the other hand, stated that years of teaching experience in science did not directly influence student science achievement.

Generally, in terms of teacher quality, the study shows that there are good quality teachers in the Sekondi Takoradi Metropolis. Consequently, their quality should reflect in their pupils academic performance. In a similar study, Weimer (2002) said the use of instructional design that focus on bringing multiple forms of active-learning and student-centred pedagogies promote learning and positively influence pupils' performance. According to Afe (2001) teachers have an important influence on students' academic achievement and they also play a crucial role in educational attainment because the teacher is ultimately responsible for translating policy into action and principles based on practice during interaction with the students. Unfortunately, the quality of teachers did not reflect significantly in the pupils' performance.

Research Question 2: What staff development opportunities are available to Junior High School teachers in the Sekondi Takoradi Metropolitan Assembly?

Junior High School teachers in STMA have access to both internal and external opportunities for staff development. Internal staff development opportunities available to the teachers are in-service training (50.0%), workshops (36.7%) and mentoring (13.3%). Mentoring programmes are provided by the headteachers in the various schools to equip newly trained teachers with the requisite pedagogical skills for effective teaching. Besides, external opportunities for staff development in the Metropolis are sandwich programmes (36.6%), distance learning programmes (46.7%) and workshops (16.7%).

Access to staff development enables the teachers to update their skills and knowledge in their subject areas. This is essential to promoted effective teaching and learning and improves pupils' academic performance. Brown et al 1995; Cohen & Hill, 1977 and Wiley & Yoon, 1995 found that higher levels of student achievement were linked to mathematics teachers' participation in content specific pedagogy activities related to the curriculum. Wenglinsky (2000) found a positive effect of professional development activities that focused on the needs of special education students, on higher-order skills, and on laboratory skills in science.

However, studies have shown that there is mixed evidence on the effect of teachers' participation in professional development activities on student outcomes. Some studies on in-service professional development found no effect on students' performance (Angrist & Lavy, 2001, Jacob & Lefgren, 2004). More recently Harris and Sass (2007) identified what they call the "lagged effect of professional development", i.e., the larger effect of professional development three years after taking place. The correlation between student achievement and teacher professional development activities does not allow us to draw conclusions about a causal link, as this

variable is confounded with other attributes of teachers, i.e., participating teachers are likely to also be more motivated and, usually, more specialised in the subjects they teach

Research Question 3: What is the academic performance of Junior High School pupils in the Sekondi Takoradi Metropolitan Assembly?

Table 5: Pupils' academic performance at BECE from 2010 -2012

Junior High Schools in STMA	Performance in BECE		
	2010	2011	2012
St John the Baptist Roman Catholic JHS	41.9	22.0	23.4
Dr. Osam Pinako JHS	56.0	68.0	12.0
Holy Child Practice JHS	14.0	21.1	100.0
Anaji Estate Key JHS	40.9	57.0	39.4
Lagos Town Metropolitan Assembly JHS	91.7	47.0	18.3
Ntankofu Metropolitan Assembly JHS	28.2	23.0	34.0
Apemedo Roman Catholic JHS	44.9	36.0	24.6
Kwasimitim Metropolitan Assembly JHS	13.4	12.0	11.8
Myohaung Forces	70.5	46.0	65.9
Rev. Cobbah Yalley JHS	14.2	20.0	13.4
Tanokrom B JHS	21.3	21.0	15.7
Rev. Grant JHS	50.6	53.0	33.8
Anne M.A. JHS	31.6	18.0	18.4
Prophet Nkansah M.A. JHS	48.9	72.0	68.0
Essawa M.A JHS	8.11	4.0	33.33
Essipon M/A JHS	34.38	20.0	24.0
Nana Anaisie	25.81	14.0	44.44
Ketan Anglican JHS	83.3	83.0	92.3
Ketan Catholic JHS	75.0	70.0	45.7
Ketan MA	21.1	45.0	37.7
Gyandu M/A JHS	0.0	0.0	6.3
St. Anne's Anglican JHS	47.5	19.0	31.6
Naval Base	95.0	100	100
Dr. Wikkie Memorial JHS	14.8	14.0	40.8
Western Command Basic	100	100	100
Korsah Complex	42.2	67.0	39.8
Bethel Meth. JHS	100	94.0	88.9
Airforce Complex	91.9	98.0	100.0
Axim Road M.A. JHS	27.5	24.0	55.2
Nassiriya Islamic JHS	57.4	59.0	2.78

Table 5 presents Junior High School pupils academic performance in the BECE from 2010 to 2012.

From the Basic School Certificate Examination results in Table 5, it was observed that more than half of the selected school obtained less than 50.0% passes in 2010, 2011 and 2012. The percentages of the selected schools that obtained less than 50.0% passes in the Basic Education Certificate Examination in 2010, 2011 and 2012 were 63.3%, 60.0% and 70.0% respectively. Eventhough some school performed creditably in the examinations, generally the pupils' performance was below or barely average. It is expected that since almost all the schools in the Metropolis have quality professional teachers there would be a corresponding high performance in the pupils' academic performance. This implies that other factors such as poor monitoring and supervision, lack of motivation as well as laxity on the part of the pupils might have adversely affected the performance of the pupils. It is therefore imperative that headteachers in the basic schools and the circuit supervisors need to step up their monitoring and supervisory activities to ensure high academic performance of the pupils in the metropolis.

Research Question 4: Is there any relationship between the quality of the teachers and Junior High School pupils' academic performance in the metropolis?

The results of the study show that there was no relationship between the quality of teachers in the Sekondi-Takoradi Metropolitan Assembly and the pupils academic performance ($r=0.451$). Eventhough there are teachers with good qualities in the metropolis, their qualities did not relate positively in the pupils academic

performance. It is generally expected that quality teachers significantly influence pupils' academic performance. However, this finding disagrees with the earlier studies of Adu and Olatundun (2007), Lockhead and Komenan (1988) and Maduka (2000), which indicated that effective teachers produced high performing students. It is noteworthy that the mean performance of students in this study was lower than the mean effectiveness rating of the teachers. This shows that the teachers are significantly more effective than what the academic performance of the students indicate. The reported level of students' performance may not be a good reflection of the quality of teaching in the schools. It may be more of the function of the quality of students and the environment of learning in public secondary schools.

Table 6: Relationship between pupils' performance and teachers' pedagogical skills, teaching experience, subject matter content and qualification

Quality of a Teacher	Correlation coefficient between teacher quality and students performance in BECE		
	2010	2011	2012
Teacher's pedagogical skills	0.198*	0.012	0.192
Teacher's teaching experience	0.419	0.124	-0.193
Subject matter content	0.381	-0.099	0.109*
Teacher qualification	0.432	0.240	-0.286

The relationship between academic performance of pupils in the Sekondi Takoradi Metropolitan Assembly in the Basic Education Certificate Examination and their teachers teaching experience, pedagogical skills, subject matter content as well as their qualification are shown in Table 6.

Hypothesis 1: There is no relationship between teachers' qualification and students' performance.

The results of the study in Table 6 show that the relationship between teachers' qualification and pupils academic performance in the Basic Education Certificate Examination in 2010, 2011 and 2012 was statistically not significant. The result of this study is similar to Buddin and Zamarro (2009) who compared teacher license test results with teacher performance in terms of students test scores. They found no relationship between students' achievement and teachers' test scores.

Hypothesis 2: There is no relationship between teachers' knowledge of subject matter and the students' performance.

The results show that there was a relationship between teachers' knowledge in the subject matter content and pupils performance in the 2012 BECE ($r= 0.109^*$). The relationship was positive but very low. The implication is that the more their teachers knowledge in the subject matter content their higher will be pupils' performance. In a study conducted by Druva and Anderson (1983) they found that students' science achievement was positively related to the teachers' course taking background in both education and in science.

However, there was no relationship between the pupils' academic performance and their teachers' knowledge of subject matter in the 2010 and 2011 BECE result. This means the pupils' performance in 2010 and 2011 Basic Education Certificate Examination has no connection teachers' knowledge in the subject matter content. This finding suggests that the teachers' subject-matter knowledge did not contribute to improvement in students' achievement (Buddin & Zamarro, 2009). Andrews, Blackmon and Mackey (1980) similarly reported that teachers' scores on the subject matter tests of the National Teacher Examinations showed no consistent relationship between this measure of subject matter knowledge and teacher performance as measured by student outcomes or supervisory ratings. Most studies show small, statistically insignificant relationships, both positive and negative.

Hypothesis 3: There is no relationship between teachers' pedagogical skills and the students' performance.

The results in Table 6 show that there was a positive but low relationship between teacher's pedagogical skills and pupils' performance in 2010 Basic Education Certificate Examination results ($r = 0.198^*$). Increase in pedagogical skills of teachers in Sekondi Takoradi Metropolitan Assembly resulted in high academic performance of the pupils. Consequently to improve pupils' academic performance in the metropolis, there is the need for teacher to make efficient use of the pedagogical skills they have acquired.

However, the relationship between teachers' pedagogical skills and pupils' performance in 2011 and 2012 BECE results was not statistically significant. This implies that the performance of the pupils in the 2011 and 2012 examination have nothing to do with the pedagogical skills of the teachers. Consequently, the pupils' performance in 2011 and 2012 could not be attributed to the pedagogical skills of the teachers.

Hypothesis 4: There is no significant relationship between teachers' teaching experience and the students' performance.

From Table 6, it was observed that the relationship between the teachers' teaching experience and the pupils' academic performance was not statistically significant, implying that the pupils performance had no connection with their teachers' teaching experience. This means the teaching experience of the teachers is not a major factor that determines the performance of the pupils. In a study conducted by Murnane and Philip (1981) as well as Klitgaard and Hall (1974), they reported that many studies have shown a relationship between teachers' effectiveness and their years of experience but not always a significant one.

Summary of Findings

There are quality teachers with the requisite professional qualifications who teach in the Junior High Schools in the Sekondi Takoradi Metropolitan Assembly. The teachers have access to staff development opportunities. Workshops, in-service training and mentoring are the internal staff development opportunities available to the teachers in the metropolis. On the other hand, sandwich programmes and distance learning programmes are the external staff development opportunities available to the teachers. A teacher's qualification, pedagogical skills, and teaching experience are very important in the teaching and learning process.

However, the quality of the teachers in the metropolis did not reflect in the pupils' academic performance in the Basic Education Certificate Examinations held in 2010, 2011 and 2012 because the pupils' performance was generally below average. Consequently, there was no relationship between the quality of teachers and the academic performance of the pupils. The participants perceived lesson note as an important factor in the teaching and learning process. Teacher's pedagogical skills related positively but low with the pupils' academic performance in BECE in 2010 and their pedagogical skills also related with the pupils performance in the BECE in 2012.

Conclusion and Recommendations

From the results of the study, it could be concluded that though there are quality Junior High School teachers in the Sekondi Takoradi Metropolitan Assembly, their performance does not reflect much in the pupils' academic performance. The quality of teachers relate to the academic performance of the pupils in the metropolis. Teachers' classroom effectiveness has been found to have only a minimal influence on the academic performance of pupils in public junior high schools in STMA in the Western Region of Ghana.

The following were the recommendations for the study:

1. The Circuit Supervisors in the metropolis should step up their supervision to ensure improvement in the academic performance of the pupils. Stepping up their performance would keep the teachers alert and enable them to work diligently to improve on the academic performance of the pupils.
2. The Counselling Unit of the Ghana Education Service and parents should counsel the pupils on the need for them to study very hard to improve the academic standard in the metropolis.
3. Teachers should be motivated to participate actively in in-service training programmes and workshops to update their knowledge and pedagogical skills.

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